1: Evans-Pritchard E-5 (1931, 1936) 1940
FJ22 Nuer FJ22

CHAPTER II

OECOLOGY

I

FROM a European's point of view Nuerland has no favourable qualities, unless its severity be counted as such, for its endless marshes and wide savannah plains have an austere, monotonous charm. It is throughout hard on man and beast, being for most of the year either parched or a swamp. But Nuer think that they live in the finest country on earth and, it must be admitted, for herdsmen their country has many admirable features. I soon gave up trying to convince Nuer that there is any country more suited for cattle husbandry than their own, an attempt rendered more useless since a few of them have been taken to Khartoum, which they consider to be the home of all white men, and, having seen the desert scrub of that latitude, have been confirmed in their opinion that their land is superior to ours.

The grasses necessary for the welfare of the herds depend for existence on suitable conditions of soil and water. The soils of Nuerland are heavy clays, broken by the sun into deep cracks in the drought and sodden in the rains. They hold up water and consequently enable certain species of grasses to survive the dry months and provide pasture for the cattle. Nuer and their cattle would not, however, be able to live if it were not that there are more sandy elevated spots on which they can take refuge in flood-time and where they can practise horticulture.

Surface water comes partly from rainfall and partly from the flooding of the rivers which traverse Nuerland and is more than adequate to make grass. In an average year the rains commence in April, when a few showers fall and the sky is overclouded, but it is not till the end of May that they set in with a will. At their maximum, in July and August, the weather is cool, even cold in the mornings and evenings, the sun is overcast during most of the day, and a south-westerly wind prevails. Showers become lighter and less frequent in October and usually have ceased altogether by the middle of November when the north wind begins to blow. It blows consistently down the valley of the Nile

1; Evans-Pritchard E-5 (1931, 1936) 1940
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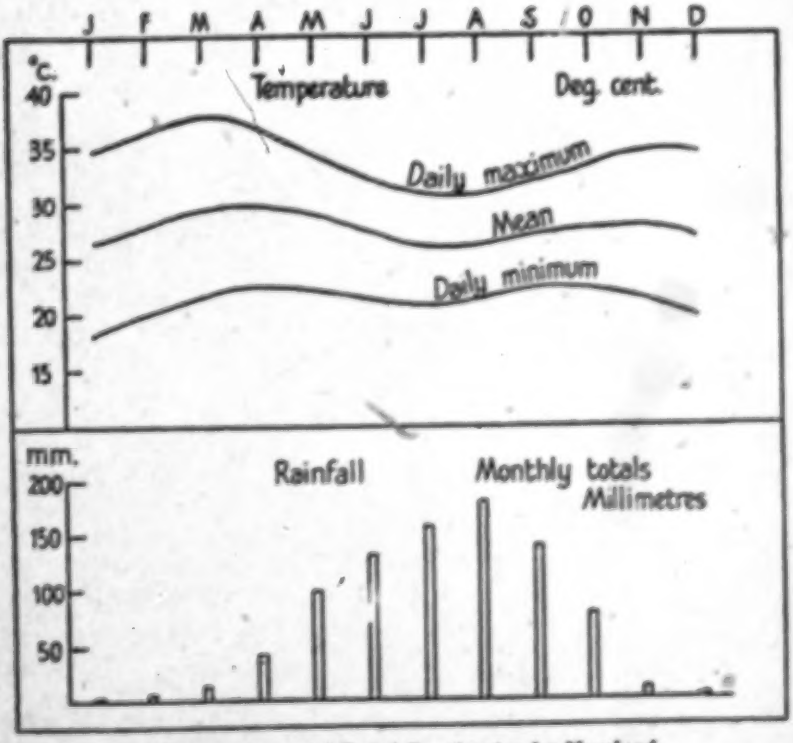
132 till March. In March and April the heat is intense. The rainfall, which is fairly even over all parts of Nuerland, is not so heavy as farther east, on the Ethiopian Plateau, or south, in the basin of the Victoria Nile and along the Nile-Congo divide, though the effects are more felt, because clay beds hold up the water,



Temperature and Rainfall estimates for Nuerland.
(*Physical Department of the Egyptian Government.*)

the flatness of the country prevents surface drainage, and the annual flooding of the rivers occurs simultaneously.

•133 The main rivers which so greatly influence Nuer life are shown on the map on p. 8. They are the Nile itself, known in these regions as the Bahr el Jebel, which derives its water from the Plateau of the Great Lakes; its western tributaries the Bahr el Ghazal and the Bahr el Arab, which are fed by streams flowing from the Nile-Congo divide; the Baro, the lower reaches of which are known as the Sobat, coming from the Ethiopian

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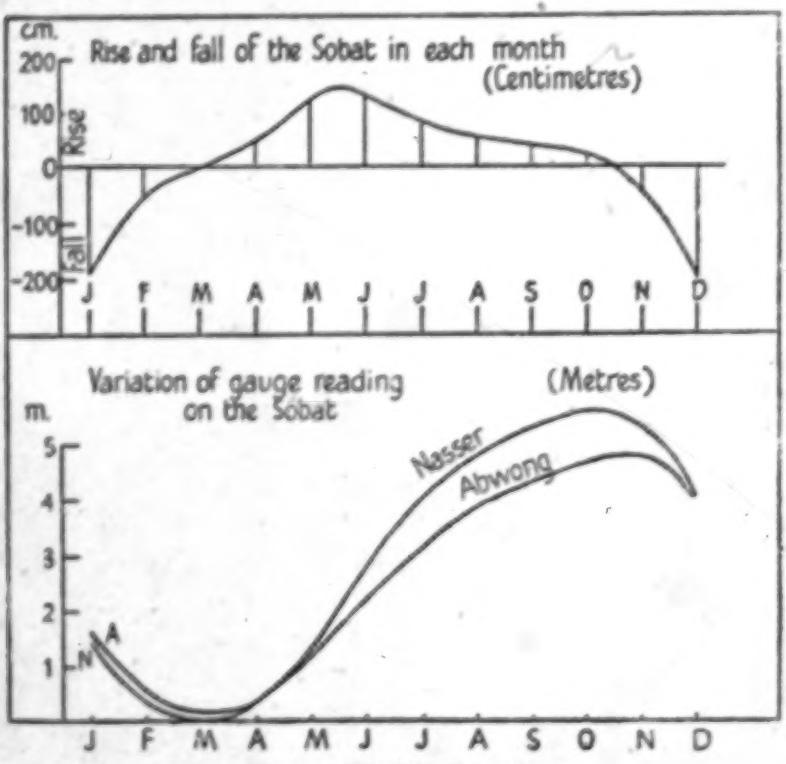
Highlands; and the Pibor which flows from the same direction and also drains to a lesser extent the northern slopes of the Plateau of the Great Lakes and the Sudan Plains. The Bahr el Zeraf is another channel of the Bahr el Jebel.[1] All these rivers flood at the time of the rains and, owing to its flatness, the country is turned into a vast morass.



Rise and fall of the Sobat river.
(*Physical Department of the Egyptian Government.*)

The whole of Nuerland is an almost dead level plain, covered during the rains with high grasses reaching to the waists, and near streams, where they are higher and coarser, to the shoulders of the tall Nuer. It approximately coincides with the extension of true savannah in the Sudan. Here and there are patches of thornwood forest, but often no tree is visible in any direction

[1] For an excellent description of these rivers see H. E. Hurst and P. Phillips, *The Nile Basin*, vol. I, 1931.

1; Evans-Pritchard E-5 (1931, 1936) 1940
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and a desolate waste stretches everywhere to the horizon (Plates VI and XI (*a*) and (*b*)). A belt of forest sometimes lines a river where its banks are high, but never extends far inland. North of the Sobat, on its lower reaches, true savannah gives way to thorny savannah and beyond the southern extremities of Eastern Nuerland one enters park-like savannah forest which becomes thicker the farther south one proceeds, though it usually turns to marshland as the Bahr el Jebel is approached. The southern borders of Western Nuerland fringe ironstone country, likewise covered with savannah forest. As a rule when the rivers are in flood they have no banks and the country lying on either side of them is swamp threaded with wide lagoons, often running parallel to the main channel. This is especially the case with the Bahr el Jebel and the greater part of the Bahr el Ghazal and the Bahr el Arab, the Jebel and the Ghazal being practically united by surface water in the rainy season. The Bahr el Zeraf is bounded by swamp to a lesser degree and the lower reaches of the Sobat not at all.

This vast plain is threaded with depressions, like that shown on Plate XIX (*b*), which run in all directions, often crossing one another, and linking up with the main rivers. Where continuous, these depressions have the appearance of small rivers, though water seldom flows in them. While rain is falling on the country the main rivers flood into these depressions, making a network of waterways which prevents drainage from the saturated earth, so that the rainwater lies everywhere in deep puddles which slowly extend till by the middle of June the whole country, except for occasional higher land, is inundated. The water remains several inches deep till September, and Nuerland has the appearance of a great grass-covered swamp; there are streams, lagoons, and pools wherever there are slight depressions, and islands, on which are perched villages, wherever there are ridges and knolls. The rivers begin to fall about the same time as the rains decline, the fall being most rapid on the Sobat (diagram on p. 53). The blazing sun then quickly evaporates the surface water, while the streams, instead of being channels of overflow from the rivers, now feed them, and by the middle of November the grasses are dry enough to be fired. By the end of December a great part of the country has been burnt

1: Evans-Pritchard E-5 (1931, 1936) 1940
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132 and is cracked into deep fissures. The wet and dry seasons
133 are therefore very pronounced and the transition from one to the other sudden.

312 Scarcity of rain is probably more serious than low river water, but both may inconvenience Nuer to the point of famine, because sufficient water may not be held up in the clay beds to enable the grasses to recover from firing; inland watercourses may quickly dry up and compel movement to lakes and rivers earlier than is desirable; and there may be a shortage of the marsh pasturage which is usually the mainstay of the cattle at the end of the dry season. Insufficient rain may also destroy the millet. Moreover, it is probable that low rainfall over the whole of North-East Africa causes insufficiency of rain and low rivers to occur in Nuerland simultaneously. Western Nuerland is less subject to drought than Eastern Nuerland, and to the west of the Nile there is always water within easy reach of villages. This seems largely due to the fact that the Bahr el Jebel and the Bahr el Ghazal do not sink in their beds to any extent, since they are fed by perennial streams and have enormous marsh and lake reservoirs. High rainfall and high river water probably also go together and in such years of flood it is difficult for the cattle to find enough grazing to maintain life.

131 The main characteristics of Nuerland are: (1) It is dead flat. (2) It has clay soils. (3) It is very thinly and sporadically wooded. (4) It is covered with high grasses in the rains. (5) It is subject to heavy rainfall. (6) It is traversed by large rivers which flood annually. (7) When the rains cease and the rivers fall it is subject to severe drought.

These characteristics interact with one another and compose an environmental system which directly conditions Nuer life and influences their social structure. The determination is of so varied and complex a nature that we do not attempt to summarize its full significance at this stage of our description, but shall ask ourselves a simpler question: to what extent are the Nuer controlled by their environment as herdsmen, fishermen, and gardeners? We have demonstrated that their chief interest is in their herds and shall first discuss how this interest, combined with physical conditions, necessitates a certain mode of life.

[p.56 contains no Textual material]

1: Evans-Pritchard E-5 (1931, 1936) 1940
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PLATE VIII

133

Sandy ridge with cattle byres on the horizon (Dok)

[Face p. 68]

1: Evans-Pritchard E-5 (1931, 1936) 1940
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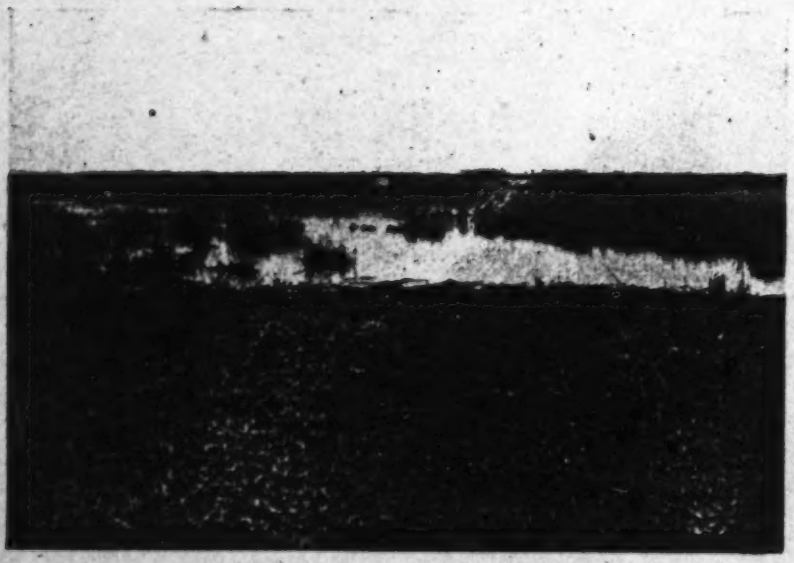
361

a. Cattle camp (Leek)

133



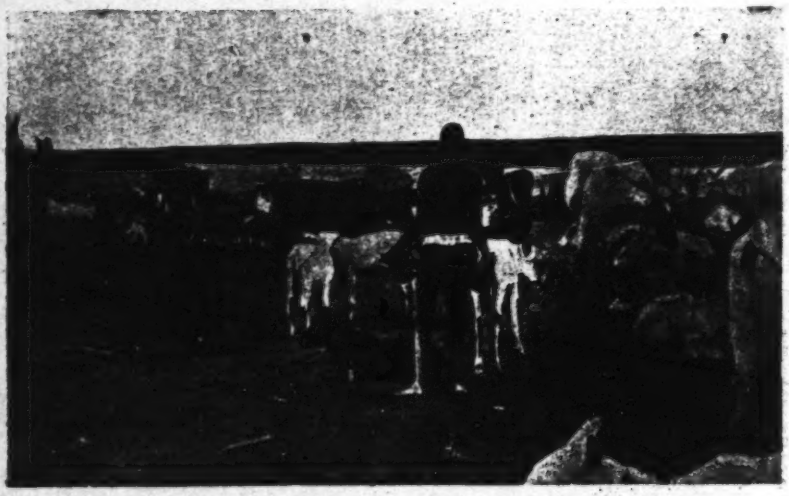
b. Typical swampy depression in November (Western Jikany)

[Face p. 176]

1: Evans-Pritchard E-5 (1931, 1936) 1940
FJ22 Nuer FJ22

PLATE XXIII

233



a. Section of camp kraal (Lou)

133

b. Sobat river in the dry season (Lou)

[Face p. 216]

6: Evans-Pritchard E-5 (1931, 1936)1938
FJ22 Nuer FJ22

ECONOMIC LIFE OF THE NUER : CATTLE.

By E. E. Evans Pritchard.

II.

621 The chief characteristices of Nuer social life can be understood only when their pastoral activities are viewed in relation to the country in which they live. Social instutitions are to a large extent a function of this dynamic relationship between mode of livelihood and environment. I have said something about cattle and the esteem in which Nuer hold them. I will now say something about the country in which these cattle have to be maintained.

186 From the European's point of view Nuerland has no favourable qualities, unless its severity be counted such, for its endless marshes
●133 and wide savannah plains have an austere monotonous charm. It is throughout hard on man and beast, being for most of the year either a swamp or a parched and waterless tract. Trekking across the Nuer plains is a great weariness to body and spirit. But Nuer do not share this opinion. They think that they live in the finest country on earth, envying no people their heritage, and, it must be admitted, for herdsmen their country has many admirable features. It provides pasturage all the year round and absence of forest prevents the encroachment of tsetse. I have long since given up trying to convince Nuer that there is any country more suited for cattle husbandry than their own, an attempt more useless since a few Nuer have been taken to Khartoum, a place they consider to be the home of all white men. Having seen the desert scrub which surrounds Khartoum they are confirmed in their opinion that their own land is superior to ours.

134 The grasses upon which depends the welfare of the herds depend, for existence in their turn, on soil and water. The soils of Nuerland are heavy clays which look very much alike to me and which are equally unpleasant to walk on in the dry season, when they are broken by the sun into deep cracks, and in the wet season when they form

134 sticky water-laden mud. The clayey plains are broken by occasional sandy ridges and knolls upon which the débris of years of occupation has accumulated. However, Nuer distinguish between the black 134 soil, of such areas as Eastern Jikany country, which they call *mun* 823 *mi car* or *dök* and the more sandy soil, which is found, for example, in parts of Lou country, and which they call *mun lita*. The black heavy clays are more suitable for cultivation of millet because they hold up rain water, but they are bad for cattle which in the rains have to struggle through the sticky mud and to eat the high coarse grasses which such soil nurtures rather than the sweeter short grasses which prevail on more sandy soils. Thus the Lou people say in favour of their country " Our cattle do not come back each day from grazing caked in mud but they return with clean hooves." On the other hand the more sandy parts of Lou country, *e.g.*, near Muot Dit, do not hold up rain water which makes cultivation of millet difficult so that even a slight drought destroys the young plants, and often makes it necessary for the people to wander early and far from their villages in the dry season to obtain sufficient pasturage. There [135] are no salt-licks in Nuerland.

Surface water comes partly from direct rainfall over Nuerland •[133] and partly from the flooding of the principal rivers which traverse it 132 and which derive most of their water from rainfall elsewhere. In an average year the rains commence in April and continue till the end of October. Towards the middle or end of April a few showers come down and the sky is overclouded. It is not till the end of May that the rains set in with a will. July and August are the months with heaviest rainfall and the weather is cool, even cold in the mornings and evenings and a south-westerly wind prevails. The sun is overcast during most of the day. Showers become lighter and less frequent in October and by the middle of November have ceased altogether. In November the north wind begins to blow and it blows consistently down the valley of the Nile from the Mediterranean to the Plateau of the Great Lakes till the approach of the next rains. The weather becomes warmer and warmer and from January till March is a great trial to Europeans.

6: Evans-Pritchard E-5 (1931, 1936)1938
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The mean monthly rainfall up to 1927 is given in millimetres by Hurst and Phillips* for the Bahr el Jebel and Bahr el Ghazal area (Western and part of Eastern Nuerland) and for the Sobat and Baro area (most of Eastern Nuerland) as follows :— 132

	Bahr el Jebel and Bahr el Ghazal		*Sobat and Baro*	
January	4	millimetres.	6	millimetres.
February	13	,,	14	,,
March	38	,,	33	,,
April	92	,,	80	,,
May	131	,,	137	,,
June	134	,,	158	,,
July	161	,,	173	,,
August	168	,,	199	,,
September	145	,,	153	,,
October	112	,,	90	,,
November	43	,,	48	,,
December	8	,,	10	,,
Year	1049	,,	1091	,,

The rainfall is fairly even over the whole of Nuerland. It is not nearly so heavy as it is to the east, on the Abyssinian Plateau, or to the south, in the basin of the Victoria Nile or in the neighbourhood of the Nile-Congo Divide. The effects, however, are felt far more than in these regions because the beds of clayey soil hold up the water and the flatness of the country prevents surface drainage. Moreover, the rivers flood at the same time as the rains pour down and the numerous swampy watercourses which thread their way through Nuerland are prevented from discharging water from their mouths. 132 133

The whole of Nuerland is an almost dead flat plain, in the main treeless and during the rains covered with high grasses which reach to the waist and, near streams where they are higher and coarser, reach to the shoulders of the tall Nuer. In my experience they grow somewhat higher in Eastern Nuerland than in Western Nuerland. At 133 137

* The Nile Basin by H. E. Hurst and P. Phillips, 1931, Vol. I, p. 47.

6: Evans-Pritchard E-5 (1931, 1936)1938
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484 At this season of the year[1] traversing open country is always difficult
133 and even along the paths inconvenient, especially as the land is
137 inundated at the same time. One can just see the horns of the great oxen at pasture. Only in the habitual grazing grounds on the slopes of slightly elevated ridges, where the cattle and the close-cropping sheep and goats have kept down the shorter species of grasses, is there any freedom of movement.

137 Nuerland approximately coincides with the extension of true savannah in the Sudan. Here and there are stretches of thornwood forest but they are never extensive. A belt of forest sometimes lines a river where its banks are high, *e.g.*, on the Sobat and along sections of the Bahr el Ghazal and the Bahr el Arab, but it never extends far inland. North of the Sobat, on its lower reaches, true savannah gives way to thorny savannah and beyond the southern extremities of Eastern Nuerland one enters parklike savannah forest which becomes thicker the further south one proceeds, though it always turns to marshland as the Bahr el Jebel is approached. To the south of Western Nuerland one touches the fringes of ironstone country, likewise covered with savannah forest.

Though thornwood forest is found along sections of the rivers, as a rule when they are in flood they have no banks and the country
133 lying on either side of them is swamp. This is especially the case with the whole course of the Bahr el Jebel through Nuerland and the greater part of the Bahr el Ghazal. The Bahr el Zeraf channel is bounded by swamp to a lesser degree and the lower reaches of the Sobat not at all. According to my own observations the area of swamp is smaller than is generally supposed.

This vast plain is threaded with depressions which run in all directions, often crossing one another, and linking up with the main rivers. Where continuous these depressions have the appearance of small rivers, though water seldom flows in them. While rain is falling on the country the main rivers flood into these depressions threading the land with a network of waterways which prevent drainage from the saturated earth so that the rainwater lies every-

[1] [i.e., during the rain season--Analyst]

6: Evans-Pritchard E-5 (1931, 1936)1938
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where in deep puddles which slowly extend till by the middle of June the whole surface of the country, except for occasional higher land, is under water. Nuerland has then the appearance of a great grass-covered swamp, there being stagnant rivers, lagoons, and pools, wherever there is a depression in the level surface, and islands wherever slightly elevated ridges and knolls rise from the ground. On these elevated spots are perched the Nuer villages.

The rivers begin to fall about the same time as the rains begin to cease. Nuerland then dries quickly. The blazing sun evaporates the surface water while the streams instead of being channels of overflow from the rivers now begin to feed the rivers, and hence drain their basins, as they sink in their beds. The grasses are dry enough by the middle of November for the Nuer to commence to fire them and by the middle of December most of the country has been burnt and the surface is cracked into deep fissures. So parched is it at this season that it is difficult to find enough water for men and herds. The wet and dry seasons are therefore very pronounced in Nuerland.

The main characteristics of the country are (1) that it is dead flat, (2) that it has clayey soils, (3) that it is mainly treeless, (4) that it is covered with high grasses in the rains, (5) that it is subject to a heavy seasonal rainfall, (6) that all its rivers flood, and (7) that when the rains cease and the rivers fall it is subject to a season of severe drought.

A year in which the rivers are low is probably not so serious for the Nuer as a year in which there is little rain. Nevertheless, when the rivers are low the clay beds may not hold up sufficient water to enable the grasses to spring up again after the annual firing, and the inland watercourses, which to a great extent rely for their water on the flooding of the rivers, may fail early in the dry season and compel the people to move to lakes and river banks earlier than they would normally do, and there may also be a shortage of marsh pasturage which is usually the mainstay of the cattle at the end of the dry season. On the other hand, if there is insufficient rain the millet crop dies and the grasses, deprived of subterranean supplies of water, do not spring

6: Evans-Pritchard E-5 (1931, 1936)1938
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312 up after firing. Therefore, whilst a year of little flooding may cause some inconvenience a year of low rainfall may cause famine. It is probable that years of low rainfall over Nuerland are also years when river water is low, *i.e.*, when the rainfall is low over the whole of North East Africa. The two together may cause Nuer great distress. Similarly, a year of exceptionally high rainfall is probably also a year of high river water and the combination sometimes causes such serious flooding that it is very difficult for the cattle to find pasturage. The hardy millet plant does not seem to be affected by moderate flooding.

•133 Such are the general conditions in Nuerland. So important is it to understand these conditions that I may be pardoned for adding 312 some further observations. Most of my sojourn among the Nuer was spent in Lou country or on its confines, and what I write of Lou country applies equally to the whole region between the Nile and the Pibor and to most of the Eastern Jikany area to the north of the Sobat. Lou country is part of the flat plain that lies between the Nile and the foothills of the Abyssinian escarpment. It is bounded to the north by the Sobat River and to the east by the Pibor River. It thus forms part of the basin of the Sobat, which is formed from the junction of the Baro and the Pibor. The water of the Baro comes entirely from the Abyssinian highlands. The water of the Pibor comes mostly from the same region though the river drains also to a lesser degree the northern slopes of the Plateau of the Great Lakes and the Sudan Plains. The Baro is a mountain torrent in the Abyssinian highlands but when it reaches the plains it begins to wind about and form swamps. The three main streams which run from south to north across Lou country, the Nyanding, the Wangnyait, and the Filus, are channels of overflow from the Sobat when it is in flood. It is the same to the north of the Baro-Sobat, in Gaajok country, where, for example, water flows out of the Baro along the Macar stream to lose itself in the vast Macar swamp. Here and there in Lou country are low ridges, some stretching several miles, and on the banks of the Sobat and Pibor are occasional knolls, known in the Sudan as *dabbas*, and on these islands of elevated ground the Nuer

6: Evans-Pritchard E-5 (1931, 1936)1938
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build their huts and byres. As most of Lou country is under water in the rains they are then literally islands. 133 312

The Sobat begins to rise at the end of April or the beginning of May and it is at its highest when the rains are at their greatest. Water flows over its banks forming lagoons and down the streams which traverse Lou country. According to the Nuer, as the water flows out of the Sobat southwards down these streams it meets the rainwater flowing northwards from their upper reaches. Thus one may observe the Pibor flowing first one way and then the other way. Whilst rainwater pours in numerous small channels into the streams they are discharging water along swampy depressions into the interior of the country.

The amount of surface water in Lou country varies from year to year but in most years it is flooded to several inches deep from July to September. This would not prevent one from trekking, unpleasant experience though it would be, but the depressions which occur at frequent intervals are a more serious obstacle for they necessitate constant wading through deep water. Even at the end of May long treks are more than Europeans care to face—the Nuer themselves move freely at all seasons of the year. Thus, at the end of May, in 1935, I found it a struggle to reach Konye from Akobo though it is only a distance of some ten miles. In July of the same year I was practically imprisoned at Yakwac for water lay everywhere several inches deep at the back of the hamlet and progress through the rank grasses was laborious and even dangerous because it was impossible to detect the deep water-filled holes in which a leg might easily be broken.

Sometimes the inundation reaches the proportions of a flood. Lou Nuer have told me that the Fadang Dinka, who occupied Lou country before the Nuer ousted them, once sustained a season of drought followed by such devastating floods that people lived on the tops of trees and ate leaves. There was great loss of life among the older people. Jackson records that in 1918 "An abnormally high river resulted in the Bahr el Zeraf overflowing its banks and inundating [173]

6: Evans-Pritchard E-5 (1931, 1936)1938
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the country to the east (Gaawär country) to such an extent that a journey which, in the ordinary course of events (in the dry season) is a matter of some inconvenience owing to the uncertainty of finding water, had to be performed for a distance of 80 miles in a canoe. And, in the same year, Nyerol post, thirty five miles to the south of Abwong, on the River Sobat (Lou country), which was usually supplied over a waterless tract (in the dry season) was only with the greatest of difficulty kept in touch with civilization owing to the country in between them being almost entirely under water.*

By November the Sobat has commenced to fall and to drain the streams which serve as its channels of overflow in flood. These streams now contribute to its volume of water with the result that the fall of water at Nasser is registered at the Sobat mouth three weeks or more later.† While the land is being drained by the Sobat the rains have ceased and the sun has evaporated surface water. The grasses are burnt and the country takes on its dry season appearance of a fissured waterless waste. The change from wet-season conditions to dry-season conditions is sudden.

Travelling in February from the Sobat to Pathai and thence eastward to Pul Fadoi, along the newly-made motor road, one traverses slightly higher ground through a thin *heglig* forest which screens the full desolation of the country, for, though in reality it offers scanty shade, it gives an appearance of verdure and freshness, and the ground is carpeted with the oval fawn-coloured fruits of the *heglig*. Game is plentiful and forest pools numerous. But the western part of Lou country, occupied by the Mor tribal section, from Pul Fadoi eastwards for over a hundred kilometres, is bleak and its bleakness is, on the whole, typical of the rest of Lou country and of Nuerland in general. It is thickly covered with dead grasses, from 4 to 8 feet high, except where it has been lately burnt for then one sees only wide stretches of charred earth, fissured into a million fragments, like a gigantic ill-fitting jigsaw puzzle, and strewn with burnt stems of grass and with

* Jackson, *op. cit.*

† Hurst and Phillips, *op. cit.*

6: Evans-Pritchard E-5 (1931, 1936)1938
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ashes. Where the grasses have been burnt some time ago green shoots have sprung up around the charred stems. Here and there stand isolated, thorny, shadeless trees, stunted by fire and spreading out their black tortured branches. Often no tree is visible in any direction and a desolate waste stretches everywhere to the horizon. The burning of the tall grasses has revealed low termite mounds, blackened by fire like the ground from which they rise. There is smoke and flame where parts of the country are still on fire. This country is uninhabited in the rains, being under water, but in February one sees occasional cattle camps around the deeper pools.

In Western Nuerland conditions are in the main similar though there are certain differences. Western Nuerland lies between the Bahr el Jebel and the Bahr el Ghazal and extends to the north of the Bahr el Ghazal as far as the southern boundary of Kordofan Province. It consists for the most part of ' cotton soil ' and like Eastern Nuerland is so dead flat that if one mounts a small termite mound one can see in all directions as far as the eye can reach. Here and there are ridges of higher ground. These village sites are always inland because, whereas the higher banks of the Sobat and Pibor allow occupation here and there, the Bahr el Jebel and the Bahr el Ghazal have no banks in their flood seasons and their beds are bordered by wide marshes. These marshes often run for several miles inland and there are very few spots on the Bahr el Jebel where it is possible to land and penetrate into the interior of the country, even in the dry season.

I have already expressed an opinion that the area covered by swamp vegetation has been exaggerated. That is an empirical judgment. The marsh vegetation, generally referred to as *sudd* in the Sudan, is a solid mass of water plants, the principal among them being papyrus (*cyperus Papyrus*), ' *Um sūf* ' (*Panicum pyramidale*) and the common reed (*Phragmites Communis*), to which cling a number of swimming plants (*Utricularia, Vallisneria, Azolla, Pistia, Aldrovandia, etc.*). Creepers especially *Vigna Nilotica* and *Ipomaea*, bind the marsh plants together into a tangled mass. Here and there grow patches of ambatch trees.* Lagoons run out of the

* Anglo-Egyptian Sudan, pp. 302-3.

6: Evans-Pritchard E-5 (1931, 1936)1938
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133 Bahr el Jebel, separated from the river by narrow stretches of papyrus (from river), and they often run parallel to the course of the river.

161 From the deck of a steamer passing down the Bahr el Jebel there is no sign of human occupation and a traveller might judge the country to be without inhabitants. But inland ridges support a [361] large population. These ridges are, as a rule, widely separated and one treks often enough ten to fifteen miles between one village and the next. In places there are broader belts of high ground covered 133 by thick thornwood forest, as in parts of Rengyan country, or wide 137 sandy ridges covered with scrub and palms (*doleib* and *dom*), as in parts of Dok and Rengyan countries. Those used to the bare monotony of Nuerland will be surprised to meet for the first time these sandy stretches which, with the classic beauty of the *dom* palms that surmount them, seem out of place in savannah plains. In the extreme south, in Nyuong country, which I have not visited, the clay runs into the ironstone belt and savannah gives way to savannah forest in which *Anoglissus Leocarpus* predominates. In the north of Western Nuerland, to the north of the Bahr el Ghazal, in Lek and Bul countries, a maze of watercourses and lagoons running in all directions impede progress for the first few miles inland from the river. Then an open treeless plain extends to the borders of Kordofan. Bul country on the lower reaches of the Bahr el Arab is said to be for the greater part under water in the rainy season, though ridges of sand and forest occur on its northern and western limits.

Most of Western Nuerland is under water in the rains and the Bahr el Jebel and the Bahr el Ghazal are practically united by surface water on the intervening plain. Nevertheless the Western Nuer are probably better favoured for village sites than the Eastern Nuer.

I entered Western Nuerland at Adok on October 1st, 1936. This year was drier than usual but in a seventeen days tour round the country we walked almost the whole time in several inches of water and were often up to our armpits when crossing depressions which are constantly met on the route. How laborious such trekking is can

6: Evans-Pritchard E-5 (1931, 1936)1938
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be imagined when one has to stamp one's way through water for ten miles at a stretch. The rank grasses prevent one from leaving the paths and the paths form miniature depressions down which water flows so that it is like walking in the bed of a tiny stream, a sticky bed where every step requires an effort to extract the foot. Rengyan country is amazing at this season of the year. One walks for miles through water to emerge suddenly on a ridge, screened by high grasses till one begins to mount it. Here is a village. One walks through the village to descend into water the other side, and then through miles of water to the next inhabited island. To live in such a country one should be amphibious, like the Nuer, who seem to be in no way inconvenienced by what are to Europeans appalling conditions.

The rains cease in November but so saturated is the earth that a late heavy shower will again innundate the country for 48 hours.

The dry season among the Western Nuer is not so severe as it is among the Eastern Nuer because there is never a shortage of water and the villages are never far from deep lagoons and streams, nor even from the main rivers themselves with their broad fringe of marshes. It is probably only in an exceptionally dry year that the larger inland watercourses entirely dry up. Probably this is in the main due to the fact that the Bahr el Jebel and the Bahr el Ghazal do not sink in their beds like the Sobat and Pibor, since they are fed by permanently flowing streams and have enormous lake and marsh reservoirs. The water of streams and lagoons in Western Nuerland is therefore not so rapidly drained as in Eastern Nuerland. Certainly the water in big streams in Dok country seems to be permanent and in walking through Lek country as late as February in 1930 we had to wade frequently through deep swampy streams and lagoons.

Nuer have expressions to denote the natural features of their country. A treeless plain they call *ghau mi dea* or, in contrast to dry elevated ridges, *pan*. A ridge or knoll is called *kwir* and *thur* or, in reference to its suitability for human occupation, *gwaadh wec*. Land which is partly inundated in the wet season, but not sufficiently to be called swampy, and is therefore suitable for growing millet, is called

8:Howell E; G-5 (1942-1944)1954
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131 [[61]] 32,000 square miles and, as it has a population of about 350,000, it will be seen that the density of population is low. Some areas are, however, more densely populated than others.

361 During the rainy season, roughly from May until November but varying from year to year, the people occupy higher ground which is better drained and comparatively free from flood. This higher ground, where they build their permanent villages and cattle-byres and have their cultivations, is limited and widely distributed. In some areas it is concentrated in a series of narrow ridges, usually running parallel to the main channels of the rivers, in others dispersed in a series of isolated outcrops. Such natural features have their effects on the size of communities, on communications and therefore social contacts, and, as a result, on political and social structure, producing local variations of detail which make generalizations difficult.

133 137 Surrounding the higher ground are the vast areas of open grass plain with thickets of acacia bush,[1] intersected by a network of grass-choked watercourses and the main rivers whose flood-plains produce different ecological conditions and different associations of grass types. Each of these regions has its function in the seasonal activities, which largely concern animal husbandry, but in which crop production, the collection of natural vegetation, and fishing play an important part. It must be emphasized here that the Nuer economy is still essentially at subsistence level and that there is no specialization or organized trade.

I do not propose to enlarge here on the subject of grass associations and pasture utilization. It is worth noting, however, that apart from soil, temperature, and length of day, one of the most important factors in the determination of grass types is the depth and period of immersion during the rainy season. On the higher ground, where the Nuer build their permanent villages, comparatively flood-free conditions produce a mixture of perennial and a few annual grasses which are fully grazed when the cattle are unable to move farther afield. Below this level are the vast 'intermediate' plains, subject to accumulations of rainfall and overflow from the drainage channels, where the grasses are predominantly perennials (*Setaria spp.*, *Hyparrhenia rufa*, &c.). These grasses are unpalatable and virtually useless except as bulk when in a dry and mature condition. So long as moisture is retained in the soil, however, they produce a green regrowth which provides valuable pasture, but in most areas the moisture is gone by the end of January, sometimes earlier. At this point, the cattle must be driven on to the riverain marshes, which, subject to deeper and longer inundation from the rivers and watercourses as well as from rain-flood, produce other types of perennial grasses (*Vossia cuspidata*, *Echinochloa pyramidalis*, *Oryza spp.*, &c.). These grasses are of variable value during the dry season, but generally speaking provide green nutritive grazing

[1] Mainly *Acacia seyal* Del., *Acacia fistula* Schwfth., *Balanites aegyptiaca* Del., &c.

8:Howell E, G-5 (1942-1944)1954
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throughout that period. This area is known as the *toic*,[1] and is of value for reasons other than pasture, for the pools and lagoons are full of fish which provide an important item of diet at that time of the year. These conditions determine the seasonal migrations of the Nuer in search of pasture for their cattle, cultivation, and other activities which are part of their economy.

Physical conditions varying from thick bush country, sandy ridges, open grasslands stretching mile after mile with scarcely a tree to break the horizon, to marshland and papyrus swamp, are found in all parts of Nuerland. In the Zeraf Valley, a few miles west of that river, there is a long and almost continuous ridge where the Lak, Thiang, and a few of the Gaawar have their permanent villages. The banks of the Zeraf are high and well defined in its lower reaches, and in some places villages are built close to the river's edge, but to the west the country tails away into swampier ground until it reaches the papyrus swamps of the Bahr el Jebel. A large proportion of Lak country and part of Thiang is covered with acacia bush, land which provides only poor grazing and an abundance of biting flies such as the striped *tabanids* which are the agent through which direct infection of trypanosomiasis is conveyed. For this reason Lak country is considered poor for cattle. The area on the east bank of the Zeraf is occupied by the majority of the Gaawar and is much less densely populated. High ground is more limited and dispersed, and the people have to contend with serious floods in their permanent settlements, but such conditions produce more plentiful grazing. In the east is the Duk Ridge, a series of sandy outcrops running parallel to the river about forty miles inland. This area was densely populated in Dinka times and in the early stages of the Nuer invasion, and it remains a refuge for the Gaawar in times of heavy flood. In the exceptional floods of 1917–18, which the Nuer refer to as *pilual*, the Duk ridge was packed with refugees fleeing from the rising waters.

The country occupied by the Lou Nuer has all the characteristics of Gaawar country, though the better drained land on which they build their villages is more concentrated, and there is no perennial river running through it. A few of the Lou move to the Sobat River during the dry season and many to the country bordering the Pibor River, but the rest remain along the *toics* left on the edges of the khor Fullus and its tributaries. Those who move eastwards have been something of a problem to the Administration in recent years, for there is a tendency to settle permanently in Anuak country and sometimes over the border in Abyssinia. The cause of this movement is presumably increasing population in man and cattle and the desire

[1] This word has no more precise meaning than 'marshland' in English, and is often used very loosely to describe any area which provides pasture during the dry months of the year.

8:Howell E, G-5 (1942-1944)1954
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for better fishing which the rivers provide. It is also possible, and this is a Nuer contention, that the watercourses which flow through Lou country are becoming clogged with silt and vegetation, with the result that water-points dry out earlier in the year though grazing may be improved.

Eastern Nuer District, which lies north of the Sobat up to the borders of Ethiopia, is flanked in the west by the vast Machar swamps, a region which might provide plentiful grazing. In fact, the people prefer to descend to the upper reaches of the Sobat and Baro rivers, where there is not only adequate pasture for their herds, but also exceptionally good fishing and an opportunity to raise a rich crop of maize on the fertile silt left by the flood water.

This whole area, the Zeraf Valley, Lou, and Jikany Dhor, is often referred to generally as 'Eastern Nuer' in contrast to 'Western Nuer', the region west of the Nile. The latter area is known to the Nuer who live east of it simply as *kuı Kir*, 'over the Nile', but it is known that it is the original homeland of all the Nuer and is sometimes referred to as *cieng Naadh*, 'Nuer homeland', as opposed to *dhor*, 'the outside'. This distinction between eastern and western Nuer is only valid in so far as those east of the Nile are all colonizers, for though there are minor cultural differences between western Nuer and the Zeraf tribes, these do not seem to me to be any greater than are those between the latter and the Lou or the Jikany (Dhor). In speaking of the 'Eastern Nuer' therefore, I refer specifically to those people (i.e. the Jikany Dhor) who live in Eastern Nuer District, an administrative classification, and not to all Nuer east of the Nile.

Western Nuer District is divided geographically and to some extent demographically into two distinct parts. There is first the area lying north of the Bahr el Ghazal and partly west of it, and secondly the region south of that river. The difference in terrain is not very great, but whereas the people who live in the north rely on the Bahr el Ghazal itself or the rivers which flow into it, those in the south rely almost entirely on the pastures provided by the natural and seasonal irrigation of the Bahr el Jebel or by the flood waters of rivers coming in from the south-west. In the southern area are the Nuong and Dur, Dok and Ask' and Jagei. These tribes, whose permanent settlements and cultivations are on a ridge of sandy ground which runs parallel to the Bahr el Jebel, graze their cattle in the dry season along the edges of that river or along inland water systems referred to as the Bilnyang system. This system is partly dependent on spill water from the Nile and partly on water derived from a different catchment area. Hence in years when the Nile provides inadequate grazing or is inaccessible owing to heavy flooding, the Bilnyang system gives an alternative. North of these tribes are the Jikany Cieng whose country lies in the triangle formed by the intersection of the Bahr

12:Evans-Pritchard E-5 (1930-1931) 1933
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to the site of their old homes but were then too exhausted to resume their feud with the Yol section.

Another recent feud in Lou country was, I believe, that between Falkir and Nyajekany tertiary sections of Rumjok primary section, and there have been others between various sections of the Mor moiety, particularly between two sections of the Jimac[1].

The commonest occasions of feuds are probably related to economic activities. One section pastures its cattle on grazing grounds over which another section has rights of ownership—rights, as we shall see later, which derive from clan heritage and are divided among the chief lineages of the clan; or men of one section attempt to water their cattle at the wells of their neighbours; or there is conflict over fishing rights. For a tribe is an economic group and so is each of its sections. This is shown in map No. V, for which, together with map No. IV, I am indebted to the industry of Mr. C. L. Armstrong. The curved lines show areas of permanent villages of the Gaagwang tribe and the main sections of the Gaajok and Gaajak tribes, while the straight lines show the area of their dry season encampments. Map No. III was drawn up by myself after questioning Lou tribesmen and is intended to give an idea of the areas of the dry and wet season occupation of the Lou, but I was unable to visit more than a fraction of the area in person. It is, therefore, not likely to be so accurate as Mr. C. L. Armstrong's map of distribution. Both maps show the annual movement of the sections from their permanent villages to their annual watering places and pastures in the dry season. The whole of Nuer life follows the rhythm of the seasons. I will describe this rhythmic movement as briefly as possible as I hope to write a separate paper on Nuer economic life. The major parts of Jekany and Lou countries are huge, flat, treeless plains of cotton soil. Where there is a slight rise in the plain the spot is selected as the site of a permanent village consisting of well-built huts and cattle byres. Where there is a dip in the plain we find rivers, pools and swamps. The Sobat river begins to fall about December when the rains decline and as it falls it drains the streams into which it has emptied its waters earlier

[1] I take this opportunity to add a footnote to explain that I have not been consistent in my use of Nuer spellings for tribal sections and clan lineages. Thus a clan lineage may be called after a man called Kwe, but his descendants will be *gaat kwith* and his village *ciang kwith*. A clan is called after a man *yi* and becomes *ciang yie*, or after *yual* and becomes *ciang yul*. I fear that I have sometimes used the nominative and sometimes the genitive cases. Names on Map No. V Yual and Wanghear may be read as Yol and Wanghar.

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in the year. At about this time the younger men of the tribe take the cattle out of the villages while the older men and the women reap the harvest. When the harvest is completed they burn the grass around the various pools which they intend to make their dry season quarters. As these rain-water pools dry up, the various household groups and groups of households which have been quartered near them begin to concentrate around larger pools in river beds or near a river bed in which it is known that wells can be dug or along the banks of the Sobat itself. Here they spend the remainder of the dry season. The Sobat begins to rise again about May and further drainage ceases. In June the rains commence and a double process of irrigation occurs. The Sobat runs out along what, on a map, appear to be its tributaries, but are more accurately its channels of overflow, while at the source end of these streams the rains begin to collect and run towards the Sobat, so that the two waters, the outgoing river water and the incoming rain water, meet. As soon as the rains commence, part of the occupants of the dry season camps return to their villages to sow the crops and as soon as it is seen that the rains have set in for good, they are followed by the young men who drive the cattle as quickly as possible to the villages where they will spend the height of the wet season.

Year by year this ebb and flow from village to dry season camps and back again goes on, but, though it is repeated each year, the time of movement, the density of concentration around water supplies, and even the place of concentration, vary according to the severity of the season. Thus, the Lou will remain as long as possible around their area of permanent villages and will concentrate around large pools like Tepjor, Nyerol, Muot Dit, Muot Tot, Fading, rather than migrate to the Sobat, Nyanding and Geni rivers, and the Dinka marshes, though I think that they generally find their way to these localities before the dry season is over.

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A permanent village may consist of a group of huts and byres on an isolated *dabba*, but those I have seen generally comprise a slightly raised area of ground of a few hundred square yards dotted with strings of homesteads. A village may cover an area of several square miles without intermission of dwellings. I regret that I am not able to give any clear idea of the social distribution of these villages since I have only lived with the Nuer in their dry season camps save for a short stay at

000 mother observes certain taboos. Usually the first-born child is delivered in the home of the maternal grandparents and, when strong enough, is taken to its father's home.

Twins are believed to be a manifestation of Nyalich. If they are both boys, it is said that they will desire their mother's death; if girls they will desire their father's death; but if one is a girl and the other a boy, each will defend one parent and so both mother and father are safe from their ill-will. After the birth of twins, prayers are made to Nyalich and a bull calf is sacrificed.

BURIAL

Death is followed by immediate burial. The body is placed in the position of sleep, being curled up on its side facing westwards. Skins are placed above and below it. The place of burial is on the right-hand side of the doorway of the house inhabited by the wife. The head of a household may, however, be buried near his father's burial place or in his own cattle byre.(1) The *bon mut* is buried in the cattle enclosure. Except for 'bull tombs', graves are not marked.

For four days the brothers and the father of the deceased sit around the grave and sleep there; during this time they are not allowed to drink milk or to go near the cows. At the end of this period they wash, and food taboos are over. After the death of an important man, the head of a lineage, the warriors make mock raids upon their neighbours 'to find the man who killed him' and to raid any cattle.

The Buor

The *buor* is a particular kind of shrine which resembles the front half of a bull; it is made of mud and has real horn inserted. Some of these shrines are surrounded by a fence and all have pegs near them to which cattle may be tied, to delight the ancestors when the shrine is repaired each year after the rains, and sacrifice is made. Bull tombs are not common. They are built a few days after death in the compound near the grave. Offerings of milk, beer and food are made there, rather than at the grave itself. If the lineage moves, the descendants may built a *buor* in the new settlement. It is not at all clear who is entitled to build these shrines but among the Dinka of the Bahr el Ghazal they are made for departed spear-chiefs.

THE NUER(2)

ECOLOGICAL CONDITIONS

/33 The Nuer inhabit the marshes and savannahs which stretch from either side of the Nile south of the point where it is joined by the Sobat and Bahr el Ghazal tributaries. These regions have all the most extreme

(1) Seligman, *Pagan Tribes of the Nilotic Sudan*, 1932, p.201.
(2) Professor Evans-Pritchard has published a number of full length studies of different aspects of Nuer society, particulars of these are given in the bibliography. The present volume attempts only a summary outline of the essential material.

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features characteristic of the areas occupied by the majority of the Nilotes - flatness, heavy clay soil, thick, tall grasses, swamp in the wet season and parched, brown stubble in the dry season. It is an area of true savannah. 133

The influence of environment on Nuer economy is profound. Although cattle form the great interest of the Nuer people, and are important socially as well as economically, horticulture is a necessary part of their economy owing to the prevalence of cattle diseases and the difficulties of obtaining adequate pastures in the dry season. Horticulture and cattle herding are, therefore, the two main economic activities, and together they determine the ecological cycle, as well as the distribution of population, village sites, and also the relationships between the various segments into which the Nuer are divided. 233 241

Nuer villages are situated on elevated ground out of reach of the wet season floods. In the early rains the cattle feed on young shoots near the village but, as the vegetation becomes too rank and the waters rise, the herds have to graze off the short grasses of the village ridges. During the wet season millet and other grains, vegetables and tobacco are grown in the gardens situated behind the homesteads. At the end of the rains, in November, the floods begin to recede. When the tall, tough grasses, which are unsuitable for the cattle to eat, are sufficiently dry they are burned. Since some varieties send up shoots a few days later, the cattle have fresh pasture until the height of the dry season when the water supplies fail in many regions. The Nuer then seek the permanent water-courses and dry-season pastures. When the harvests are finished they move from the villages to the dry-season camps; a period of wandering divides the two periods of stable residence. The dry-season camps are situated on the banks of rivers which do not completely dry up or on the edge of permanent swamps. 233 241 361 132

When the rains begin again in April and May, water and pasture become plentiful and a move is made back to the villages above flood level, in order to prepare the ground for cultivation.

The annual cycle is approximately set out below. It has considerable repercussions on social life and, although local conditions may cause some variation, the principles underlying the annual cycle are the same everywhere in Nuerland. 221

November - December. Youths and girls take cattle to camps while the old people remain in the village to harvest the second millet crop. Fishing camps may be formed on the banks of rivers. When the second harvest is finished the cattle are brought back to eat the millet stalks but as the pastures become exhausted all eventually go to occupy new cattle camps. A period of wandering precedes the final settlement in the camp. 221 361 233 241

January - February. The married people join the youths when they settle in the final camping grounds. Camps get larger and larger as pastures become scarcer and more people join existing camps. Different villages and tribal sections tend to move at about the same time and to visit the same pools so that the sites of the main dry-season camps do not change from year to year. 221 361